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**CENTRAL FAX CENTER**  
**JUL 15 2008**

Application No. 10/672,937  
Amendment and Reply Dated July 15, 2008  
In Response to Office Action Dated April 15, 2008

**REMARKS**

Continued examination and favorable reconsideration are respectfully requested.

**Introduction**

Claims 1-9, 11, 16, 18, and 45-46 remain pending in the application. Claims 12, 17, and 19-44 were previously canceled without prejudice or disclaimer. By this amendment, claims 10, 13-15, and 47 are canceled without prejudice or disclaimer. Claims 1, 16, and 46 have been amended. Support for amended claim 1 can be found throughout the specification, for example, at least in paragraphs [0056], [0070], [0091], [0094], [0095], [0122], and in FIG. 6 of the corresponding published application US 2004/0142347 A1. No new matter has been added. Reconsideration and prompt favorable action are respectfully requested.

**Rejection of Claims under 35 U.S.C. § 101**

At page 2, of the Office Action, claim 47 is rejected under 35 U.S.C. § 101 because the claimed invention is allegedly directed to non-statutory subject matter. For the reasons set forth below, Applicants respectfully traverse the rejection. Reconsideration and withdrawal of the rejection are respectfully requested.

Claim 47 has been canceled, thereby rendering this rejection moot. Accordingly, withdrawal of the rejection is respectfully requested.

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**Rejection of Claims under 35 U.S.C. § 112**

At page 5, of the Office Action, claims 1-11, 13-16, 18, and new claims 45-47 are rejected under 35 U.S.C. § 112, second paragraph, for allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. For the reasons set forth below, Applicants respectfully traverse the rejection.

The Examiner asserts "trimming the consensus sequence information until the percentage of ambiguous bases is below a user-defined threshold" is indefinite. Applicants have removed this language from claim 1, and claim 46 now clarifies that the trimming is done from the edges, thereby rendering this rejection moot. Reconsideration and withdrawal of the rejection are respectfully requested.

The Examiner asserts the phrase "variant information" is indefinite, as presently featured in claim 1. Applicants have amended claim 1 to delete reference to "variant information." In claim 16, "variant information" is now recited as "variant sequence information," e.g., that comprises differences between the plurality of base calls of the reference sequence information and the plurality of base calls of the consensus sequence information. Accordingly, variant sequence information is clearly defined as the differences between the two sets of base calls. As a result, the rejection is deemed to be overcome. Reconsideration and withdrawal of the rejection are respectfully requested.

The Examiner rejects claim 47 but claim 47 has been canceled, thereby rendering this rejection moot. Reconsideration and withdrawal of the rejection are respectfully requested.

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The Examiner rejects claims 13-15, and alleges that the language, "consecutive runs of bases" is indefinite. Claims 13-15 have been canceled, thereby rendering this rejection moot. Reconsideration and withdrawal of the rejection are respectfully requested.

**Objection Warning**

At page 6 of the Office Action, the Office Action states that should claim 7 be found allowable, claim 10 would be objected to under 37 CFR 1.75 as being a substantial duplicate of claim 7. For the reasons set forth below, Applicants respectfully traverse the rejection. Claim 10 has been canceled thereby rendering this objection moot. Thus, reconsideration and withdrawal of the rejection are respectfully requested.

**CONCLUSION**

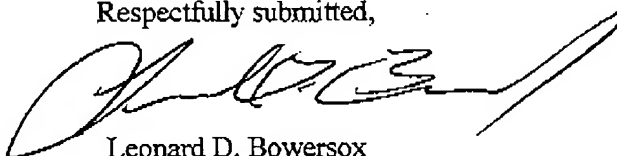
In view of the foregoing remarks, applicants respectfully request favorable reconsideration of the present application and a timely allowance of the pending claims.

Should the Examiner deem that any further action by applicants or applicants' undersigned representative is desirable and/or necessary, the Examiner is invited to telephone the undersigned at the number set forth below.

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If there are any other fees due in connection with the filing of this response, please charge the fees to deposit Account No. 50-0925. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such extension is requested and should also be charged to said Deposit Account.

Respectfully submitted,



Leonard D. Bowersox  
Reg. No. 33,226

KILYK & BOWERSOX, P.L.L.C.  
3925 Chain Bridge Road, Suite D-401  
Fairfax, Virginia 22030  
Tel.: (703) 385-9688  
Fax: (703) 385-9719